

THROUGH-TIMING OF DATA TRANSMITTED ACROSS AN OPTICAL
COMMUNICATIONS SYSTEM UTILIZING FREQUENCY DIVISION
MULTIPLEXING

ABSTRACT OF THE DISCLOSURE

Data is transmitted across an optical fiber communications system by splitting an incoming tributary into multiple low-speed data channels, modulating each of these into a stream of symbols (e.g., by using QAM modulation) and then frequency division multiplexing a number of symbol streams into a single high-speed channel to be transmitted across a fiber. The receiver reverses this process. In order to preserve the jitter tolerance for the overall system, reference clocks are used to remove unwanted jitter in the timing of the system.